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(71) Applicant and

(72) Inventor: **MOLLAGREAN, Brian** [ZA/ZA]; Gerrits
House, 3rd Floor, 14 Belmont Road, Belmont Office Park,
7700 Rondebosch (ZA).

(74) Agent: **BACON, Brian**; Brian Bacon & Associates,
Mariendahl House, 2nd Floor, Fedsure on Main, Main
Road, 7700 Newlands (ZA).

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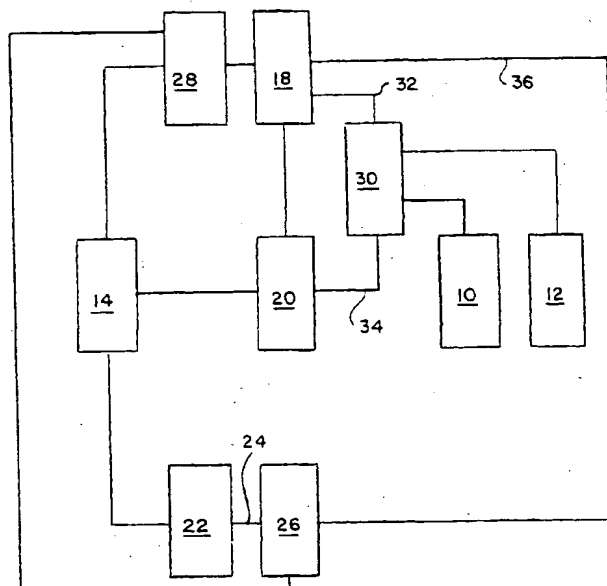
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(54) Title: **SYSTEM FOR FACILITATING PAYMENT FOR GOODS**



(57) Abstract: A system for handling purchase and sale transactions between a customer and a supplier. The system comprises a main computer (10) which incorporates a number generator (12) for generating a code unique to each transaction. The main computer is connected to a further computer (20) on which the supplier has its website. The purchase and sale information is generated by the further computer and then stored in the main computer. The unique code is generated based on the purchase and sale information transmitted to the main computer. It is then incorporated in the customer's invoice. When the invoice is paid information pertaining to payment is captured for comparison with the stored information. A match results in the supplier being electronically advised.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

SYSTEM FOR FACILITATING PAYMENT OF GOODS

FIELD OF THE INVENTION

THIS INVENTION relates to a system for facilitating payment for goods purchased via the Internet, by telephone, by fax or by mail.

BACKGROUND TO THE INVENTION

So-called MOTO (Mail Order Telephone Order) suppliers have existed for many years. The goods selected are ordered by mail, telephone or more recently by fax. Payment was initially on a Cash on Delivery basis or on the basis that the goods would only be dispatched once payment was received. The advent of credit cards has meant that, in respect of most purchases, a credit card number is provided by the customer and, on a successful debit to the card account being made, the goods are dispatched immediately.

With the creation of the Worldwide Web or Internet, suppliers now offer goods via their website. This is known as e-commerce. To pay for goods that are required, the purchaser inputs his credit card number and other details and these are received by the supplier. Once a successful debit has been made to the card account, the supplier dispatches the goods. For people without credit cards access to e-commerce is difficult in view of the problems involved in making payment. Furthermore, inputting a credit card number into the Internet, despite encryption

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programs, is fraught with danger. If the credit card number falls into the wrong hands, credit card fraud can result.

The present invention seeks to overcome the potential difficulties resulting from the use of credit cards on the Internet. It also seeks to provide a system which enables potential customers without credit cards to make use of e-commerce.

BRIEF DESCRIPTION OF THE INVENTION

According to one aspect of the present invention there is provided a system for handling purchase and sale transactions, the system comprising a first computer including means for generating a unique code, a link connecting the first computer to a second computer on which second computer a supplier has its website, means for transmitting from the second computer to the first computer information pertaining to a purchase and sale transaction which the supplier and a customer are undertaking, means for transmitting a unique code from the first computer to the second computer upon receipt by the first computer of said information, means for printing out an invoice incorporating said unique code, a payment collector having means for receipting payment of said invoice, and means for transmitting to said supplier information pertaining to said payment.

The code can be in the form of printed digits, in the form of a printed bar code or in the form of a magnetic strip.

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Preferably the invoice is transmitted to the customer electronically and is printed out by the customer. However, the invoice can be printed by the supplier and faxed or mailed to the customer. If the unique code is in printed digits or a bar code it is printed onto the invoice. If it is in the form of a magnetic strip it can be stuck onto the invoice.

According to a further aspect of the present invention there is provided a method of handling a purchase and sale transaction which comprises transmitting information pertaining to the transaction from a supplier's computer to a main computer, using the main computer to generate a unique code based on the information received from the supplier's computer, transmitting the unique code to the supplier's computer, generating an invoice including said unique code, capturing information pertaining to payment of the invoice, inputting to said main computer said information pertaining to payment of said invoice, comparing the information stored in said main computer with the information inputted pertaining to payment of the invoice and, upon the information matching, transmitting to the supplier's computer a signal indicative of the fact that the invoice has been paid.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the present invention, and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawings in which each of the Figures diagrammatically illustrates a purchase and sale transaction handling system in accordance with the

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present invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring firstly to Figure 1 details of each supplier that has contracted into the payment scheme are stored in a database designated 10. The following details pertaining to each supplier are stored by the database 10:-

- Name of supplier (individual, company or other legal entity)
- Street address, fax and phone number
- Postal address
- Contact person and position
- e-mail address of contact person
- A user name and password that will be used to log onto the website
- Bank account details
- Scanned in signed contract

The system also includes a number generator 12 which is able to generate a unique invoice code. The code can be in the form of a bar code or a magnetic strip and hence be machine readable. However, it can also be in the form of digits recognisable by a human operator. An example of an invoice code in the form of a number is as follows:

S NNNN DDDDD RRRRR V C

where

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S	is the code number identifying the scheme to which the supplier has contracted
NNNN	is a supplier status code
DDDDD	is the Julian date
RRRRR	is a random number
V	is a value group
C	is a check digit

The supplier status code is used to identify the supplier according to its stature, credit rating, security, ability to deliver, and so forth. The status will be prominently displayed on the supplier's own website, and could be used to decide which forms of payment the supplier will accept.

The Julian date is a five-digit number giving the day of the year and year as DDDYY. For example, the 3rd May 2001 would translate to 12301 i.e. the 123rd day of the year "01".

The value group is a function of the purchase amount, but taking into account only the "hundreds" portion of the amount.

0	R000	to	R100
1	R100-01	to	R200
2	R200-01	to	R300

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3	R300-01	to	R400
4	R400-01	to	R500
5	R500-01	to	R600
6	R600-01	to	R700
7	R700-01	to	R800
8	R800-01	to	R900
9	R900-01	to	R999-99

Thus, an amount of R2345-00 would have a value group of 3.

The number generator 12 can be such that, once a number has been generated, that number cannot be generated again. Thus each generated number is unique. However, it is also possible for the system to re-generate a number which has previously been generated and in respect of which number all transactions have been entirely completed. Thus the numbers are in this case unique in the sense that the same number is not in use in respect of two different transactions simultaneously.

The potential customer designated 14 has a personal computer and a web browser giving him access to the Internet. The supplier 18 is shown as having its personal computer connected to the Internet, the supplier's website being on a server 20. If the supplier is substantial enough it will probably have its own web server and host its own website.

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The system further includes a payment collector 22. The payment collector 22 can be a retailer, a post office, a petrol station or any other place of business to which the customer has access and at which he can make payment. Payment can be by cash, credit card, cheque or in any other available manner.

The payment collector 22 is preferably connected by an electronic computer-to-computer link 24 to the computer 26 of the commercial concern which is responsible for holding all payments and then paying them over to the supplier as described below.

Actual delivery of the goods from the supplier to the customer is entrusted to a delivery service 28 which may be the post office or a courier service.

The server 30 which forms the Internet interface for the payment system incorporates and controls the number-generator 12 and the database designated 10.

It will be assumed, in the following description of how the system of Figure 1 is used, that all links are computer-to-computer and that the transaction is thus an e-commerce transaction. It will also be assumed that the supplier's details have been transmitted to the server 30 through the link 32.

The customer 14 accesses the supplier's website on the server 20

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from his personal computer and selects the goods that are to be purchased. Upon the customer clicking on the button which confirms the purchase, the server 20 accesses the server 30 via the link 34. Information regarding the purchase and sale is transmitted to the server 30 over the link 34. If the database 10 confirms that the supplier is in good standing, a unique number is generated by the generator 12. The number is transmitted to the supplier's web server 20 and incorporated into an invoice which is generated by the supplier's web server 20. The invoice is transmitted to the customer 14 and the customer then prints out the invoice. In addition to the information normally found in an invoice, the invoice incorporates the unique number discussed above and generated in respect of the transaction.

The customer 14 then takes the invoice to the payment collector 22 and makes a payment of the amount shown on the invoice. The payment is entered in conjunction with the unique number, and the fact of payment, the amount paid and the unique number are transmitted electronically to the computer 26.

The supplier involved is determined from the unique number, and the information regarding payment etc is transmitted to the applicable supplier along an email link 36.

The supplier 18 now has the security of knowing that the amount due has been paid and is being held for it, and can dispatch the goods purchased. The amount paid is retained in an account held by the concern operating the computer

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26 which will normally be the concern which runs the server 30, generator 12 and database 10.

The supplier 18 then hands the goods to the delivery service 28, which delivers them to the customer 14, obtaining proof of delivery. The waybill number can be, or can include, the unique number. Once delivery has been concluded by the courier, the courier or the supplier supplies the unique number to the computer 26 at which it is correlated within the other information pertaining to the specific transaction. Input of information pertaining to delivery is used to generate delivery confirmation for transmission over link 36 to advise the supplier 18. The amount due to the supplier is then paid over to the supplier.

The system of Figure 2 is specifically intended for use where the customer 14.1 does not have an email connection. Using a catalogue or any other means the customer makes the selection and confirms it, if necessary by fax, mail or telephone. This non-Internet link is shown at 38. The supplier 18.1 inputs information pertaining to the transaction to its web server 20.1, and this is transmitted to the server 30.1. At this stage the unique number is generated and transmitted to the supplier 18.1. The procedure is then as described above except that the supplier must use a non-Internet way of sending the invoice to the customer e.g. fax or postal service.

CLAIMS:

1. A system for handling purchase and sale transactions, the system comprising a first computer including means for generating a unique code, a link connecting the first computer to a second computer on which second computer a supplier has its website, means for transmitting from the second computer to the first computer information pertaining to a purchase and sale transaction which the supplier and a customer are undertaking, means for transmitting a unique code from the first computer to the second computer upon receipt by the first computer of said information, means for printing out an invoice incorporating said unique code, a payment collector having means for receipting payment of said invoice, and means for transmitting to said supplier information pertaining to said payment.
2. A system as claimed in claim 1, wherein the code is in machine readable form.
3. A system as claimed in claim 2, wherein the code is additionally in the form of digits recognisable by the human operator.
4. A system as claimed in claim 1, 2 or 3, and including means for transmitting the invoice to the customer electronically and means for printing out of the invoice by the customer.

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5. A system as claimed in claim 1, 2 or 3, and including means for enabling the invoice to be printed by the supplier.
6. A method of handling a purchase and sale transaction between a customer and a supplier which comprises transmitting information pertaining to the transaction from a supplier's computer to a main computer and storing the information, using the main computer to generate a unique code based on the information received from the supplier's computer, transmitting the unique code to the supplier's computer, generating an invoice including said unique code, capturing information pertaining to payment of the invoice, inputting to said main computer said information pertaining to payment of said invoice, comparing the information stored in said main computer with the information inputted pertaining to payment of the invoice and, upon the information matching, transmitting to the supplier's computer a signal indicative of the fact that the invoice has been paid.
7. A method as claimed in claim 6 and including transmitting the invoice electronically to the customer for printing by the customer.

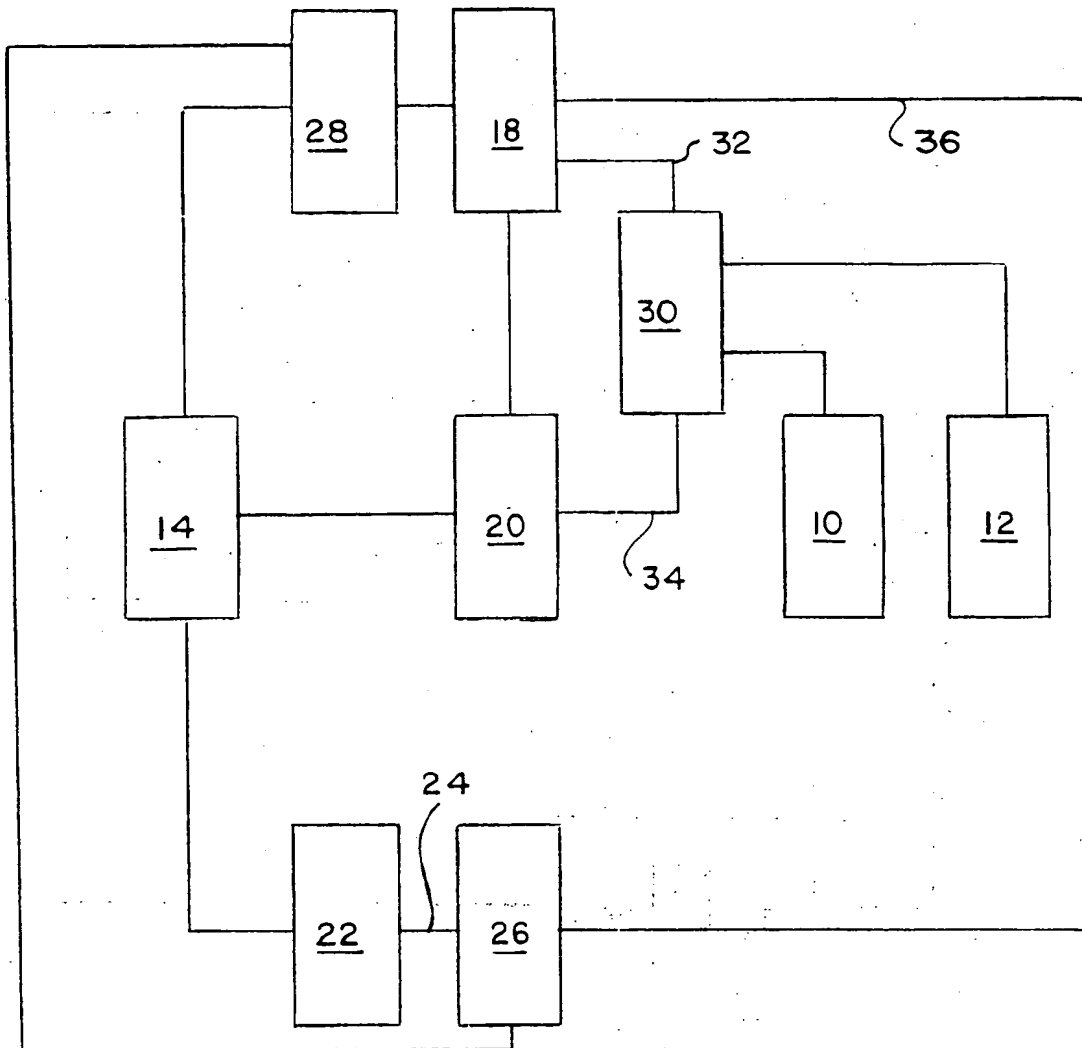


FIG. 1

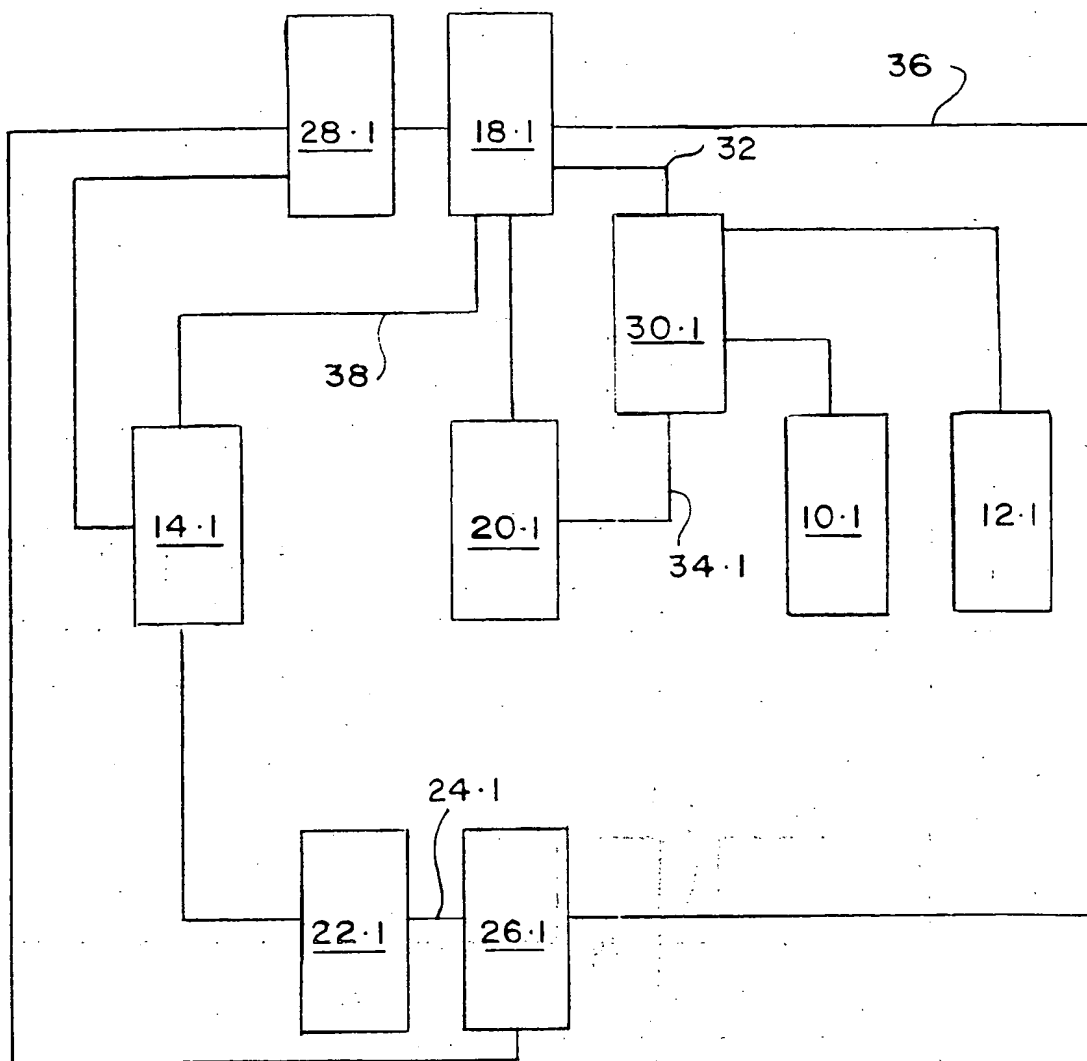


FIG. 2

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/ZA 00/00235

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G07F19/00 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G07F G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 883 810 A (ROSEN DANIEL ET AL) 16 March 1999 (1999-03-16) abstract column 2, line 43 - line 55 column 6, line 1 - line 11 column 9, line 63 - column 10, line 5 ---	1-7
Y	WO 97 08643 A (VISA INT SERVICE ASS) 6 March 1997 (1997-03-06) abstract page 5, line 6 - line 23 page 9, line 1 - line 9 ---	1-7
A	US 5 699 528 A (HOGAN EDWARD J) 16 December 1997 (1997-12-16) abstract column 5, line 1 - line 19 ---	4,5,7
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Wolles, B

INTERNATIONAL SEARCH REPORT

International Application No
PCT/ZA 00/00235

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	EP 0 779 587 A (N K KIKAKU KK) 18 June 1997 (1997-06-18) abstract column 3, line 41 -column 4, line 9 -----	1-7

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Information on patent family members

national Application No

PCT/ZA 00/00235

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